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C. Amendment to the Claims

The following listing of claims will replace all prior versions.

Listing of claims:

1. (Currently Amended) A wireless gateway for connecting mobile and remote assets or human resources to business enterprise users through multiple wireless networks and the Internet by using web served applications, said gateway comprising:

location aware business logic for sending and receiving location based information to and from remote and mobile assets and an enterprise user, and for applying business logic to said location information to enhance and automate business applications run by the enterprise user,

said business logic providing a common interface and protocol for handling said location information and enabling applications that follow said protocol to interface with said gateway to use said location information to dispatch instructions to a mobile asset to proceed to a job site different from its dispatch location, including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the dispatch instructions, and automatically detect at least one of the events of the mobile asset arriving at the job site and mobile asset leaving the job site, and

an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset.

2. (Original) The wireless gateway of claim 1, wherein said remote assets include at least one handheld portable device operating on a wireless network.

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3. (Original) The wireless gateway of claim 1, wherein said mobile assets include vehicles, and navigation and sensor devices mounted respectively to at least some of said vehicles and operating on a wireless network.

4. (Original) The wireless gateway of claim 1, wherein said business logic includes means for bundling together of small, frequent data items into large, less frequent data packets for insertion into a queuing system to accommodate low packet throughput rates of a software queue, for messaging on a wireless network between said remote and mobile assets or human resources and said business enterprise users.

5. (Original) The wireless gateway of claim 1, wherein said remote and mobile assets include:

at least some hybrid systems, each hybrid system including

a handheld portable device, and

a combined navigation and sensor device mounted to a vehicle,

each of said devices operating on a wireless network.

6. (Original) The wireless gateway of claim 5, including means for short range wireless connection between said handheld portable device and said vehicle-mounted combined navigation and sensor device of each said hybrid system.

7. (Original) The wireless gateway of claim 3, wherein said navigation and sensor devices include means for detecting arrival and departure of the respective vehicles to which said devices are mounted, at and from job sites.

8. (Original) The wireless gateway of claim 7, wherein said navigation and sensor devices include means for reporting said site arrival and departure to an enterprise user on said wireless network via said gateway.

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9. (Original) The wireless gateway of claim 7, including means for establishing work orders and for communicating instructions from an enterprise user to at least some of said

vehicles for dispatching thereof to job sites according to the established work orders.

10. (Original) The wireless gateway of claim 9, further including means for automatically

deriving work order status from reported site arrival and departure.

11. (Original) The wireless gateway of claim 8, wherein said navigation and sensor devices

include means for recognizing a job site as being active for a preset time period, during

which said reporting of respective vehicle arrival at and departure from said site is

maintained, and for discarding information regarding location and status of said site after

said time period expires.

12. (Original) The wireless gateway of claim 2, wherein said handheld portable device

includes logic means for detecting arrival at and departure from a preselected site by said

device.

13. (Original) The wireless gateway of claim 12, wherein said handheld portable device

includes means for automatically reporting said detected arrival at and departure from

said preselected site to an enterprise user on said wireless network via said gateway.

14. (Original) The wireless gateway of claim 3, wherein said navigation and sensor devices

includes logic means for detecting arrival at and departure from a preselected site by

respective vehicles to which said devices are mounted.

15. (Original) The wireless gateway of claim 14, wherein said navigation and sensor devices

include means for automatically reporting said detected arrival at and departure from said

preselected site by their respective vehicles to an enterprise user on said wireless network

via said gateway.

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16. (Original) The wireless gateway of claim 1, wherein said business logic includes means

for bundling frequent asset and resources location reports into large infrequent message

packets for reduction of message overhead in messaging between said remote and mobile

assets or human resources and said business enterprise users on a wireless network,

including sending a full location report followed by reports on changes in location that

occupy a comparatively smaller amount of bandwidth.

17. (Original) The wireless gateway of claim 2, wherein said handheld portable device

includes logic means for detecting preselected events including type and location of each

event encountered by said device during movement thereof, and means for reporting said

events to an enterprise user on said wireless network via said gateway.

18. (Original) The wireless gateway of claim 17, wherein said logic means of said handheld

portable device includes means for detecting street address or other site location of an

event.

19. (Original) The wireless gateway of claim 3, wherein said navigation and sensor devices

include means for detecting preselected events including type and location of each event

encountered by said respective vehicles during activity thereof, and means for reporting

said events to an enterprise user on said wireless network via said gateway.

20. (Original) The wireless gateway of claim 19, wherein said detecting means detects street

address or other site location of an event.

21. (Original) The wireless gateway of claim 1, including an extensible markup language

(XML) interface to said wireless gateway for extending the functionality thereof.

22. (Currently amended) A method for connecting mobile and remote assets or human

resources to business enterprise users through multiple wireless networks and the Internet

via a wireless gateway by using web served applications, said method comprising:

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sending and receiving location based information to and from remote and mobile assets

by means of location aware business logic in said gateway, and applying said business

logic to said location information to enhance and automate business applications run by

an enterprise user, and

providing a common interface and protocol for handling said location information with

said business logic for enabling applications that follow said protocol to interface with

said gateway and use said location information to dispatch instructions to a mobile asset

to proceed to a job site different from its dispatch location including transmitting to the

mobile asset a dispatch message indicating the location of the job site, and receiving from

the mobile asset a message indicating that the user of the mobile asset has received the

dispatch instructions, and automatically detect at least one of the events of the mobile

asset arriving at a job site and the mobile asset leaving a job site, and

monitoring and tracking the quantity and consumption of consumable

inventory of non-vehicle products on the mobile asset not connected to the mobile

asset and used in the business of the mobile asset .

23. (Original) The method of claim 22, including using at least some handheld portable

devices operating on a wireless network as said remote assets.

24. (Original) The method of claim 22, including using vehicles with navigation and sensor

devices mounted respectively thereto operating on a wireless network as said mobile

assets.

25. (Original) The method of claim 22, including bundling together small, frequent data

items into large, less frequent data packets for insertion into a queuing system to

accommodate low packet throughput rates of a software queue, and conducting

messaging with said bundled data packets on a wireless network between said remote and

mobile assets or human resources and said business enterprise users.

26. (Original) The method of claim 22, including using at least some hybrid systems, each

hybrid system including a handheld portable device and a combined navigation and

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sensor device mounted to a vehicle, with each of said devices operating on a wireless

network, as said remote and mobile assets.

27. (Original) The method of claim 26, including transmitting data via short range wireless

connection between said handheld portable device and said vehicle-mounted combined

navigation and sensor device of each said hybrid system.

28. (Original) The method of claim 24, including detecting arrival at and departure from job

sites by said vehicles by means of said respective navigation and sensor devices mounted

to the vehicles.

29. (Original) The method of claim 28, including reporting said site arrival and departure of

each of said vehicles to an enterprise user on said wireless network via said gateway, by

means of said respective navigation and sensor devices mounted to the vehicles.

30. (Original) The method of claim 28, including establishing work orders, and

communicating instructions from an enterprise user to at least some of said vehicles for

dispatching thereof to job sites according to the established work orders.

31. (Original) The method of claim 30, further including automatically deriving work order

status from reported site arrival and departure.

32. (Original) The wireless gateway of claim 29, including recognizing a job site as being

active for a preset time period by means of said navigation and sensor devices, and

maintaining said reporting of respective vehicle arrival at and departure from said site

during said time period, and discarding information regarding location and status of said

site after said time period expires.

33. (Original) The method of claim 23, including detecting arrival at and departure from a

preselected site by said handheld portable device.

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34. (Original) The method of claim 33, including automatically reporting from said handheld

portable device the detected arrival at and departure from said preselected site of said

device to an enterprise user on said wireless network via said gateway.

35. (Original) The method of claim 24, including detecting arrival at and departure from a

preselected site by said vehicles by means of said navigation and sensor devices mounted

to respective ones of said vehicles.

36. (Original) The method of claim 35, including automatically reporting from said

navigation and sensor devices said detected arrival at and departure from said preselected

site by their respective vehicles to an enterprise user on said wireless network via said

gateway.

37. (Original) The method of claim 22, including bundling frequent asset and resources

location reports into large infrequent message packets for reduction of message overhead

in messaging between said remote and mobile assets or human resources and said

business enterprise users on a wireless network via said gateway.

38. (Original) The method of claim 37, including sending full reports of respective location

from said assets or resources followed by at least occasional reports of respective changes

in location that occupy a comparatively smaller amount of bandwidth.

39. (Original) The method of claim 23, including detecting preselected events including type

and location of each event encountered by said handheld portable device during

movement thereof, and reporting said events to an enterprise user on said wireless

network via said gateway with said device.

40. (Original) The method of claim 39, including detecting street address or other site

location of an event with said device.

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41. (Original) The method of claim 24, including detecting preselected events including type

and location of each event encountered by said vehicles during activity thereof by means

of said navigation and sensor devices respectively mounted thereto, and reporting said

events to an enterprise user on said wireless network via said gateway with said devices.

42. (Original) The method of claim 41, including detecting street address or other site

location of an event with said devices.

43. (Original) The method of claim 22, including interfacing an extensible markup language

(XML) interface to said wireless gateway for extending the functionality thereof.

44. (Original) A system for efficient management of transportable assets including vehicles

and portable units of a business enterprise constituting a customer of said system, said

system comprising:

a wireless gateway,

wireless devices disposed in said assets and connectable to said wireless gateway

through at least one wireless data network,

said business enterprise having

asset management apparatus connected by browsers through the Internet to said

wireless gateway, and

business applications served over the Internet for processing data for managing

said assets,

said wireless gateway including location aware core business logic for tying said

assets and said business applications together through a common set of protocols and

interfaces for enabling said business applications to use data indicative of location of said

assets, and

an inventory monitoring system on board the mobile asset for monitoring and

tracking the quantity and consumption of consumable non-vehicle products on the mobile

asset and used in the business of the vehicle.

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45. (Original) The system of claim 44, wherein said core business logic and said business

applications are implemented at a web site for said wireless gateway.

46. (Original) The system of claim 44, wherein said core business logic manages said

customer's login accounts and access to location and availability data regarding said

assets.

47. (Original) The system of claim 46, wherein said core business logic further manages

communications between said wireless devices and said business enterprise and access to

said at least one wireless network.

48. (Original) The system of claim 44, wherein said wireless gateway includes routers for

routing data communications between said customer at the business enterprise and said

wireless devices through said core business logic, and said core business logic includes a

database and interfaces to said business applications.

49. (Original) The system of claim 44, wherein said business applications include mapping

and text messaging applications tightly coupled to said core business logic for facilitating

use of asset and geographic site location information and message routing functions of

said wireless gateway.

50. (Original) The system of claim 49, wherein said business applications further include

work order management and dispatching applications for maintaining work orders and

scheduling said assets comprising vehicles at job sites constituting locations where work

is to be performed, and said wireless gateway includes means responsive to creation of a

job site for storing site location information indicative thereof and means for sending said

site location information to vehicles dispatched by said dispatching application to said job

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site under a work order, each of said vehicles including means for automatically transmitting data to said wireless gateway indicative of events including vehicle arrival at and departure from said job site, said wireless gateway further including means for transmitting said event-indicative data from said vehicles to said work order management application for automatically changing the status of said work order accordingly, whereby to enable said work order management and dispatching applications to keep track of locations of said vehicles or personnel associated with said vehicles relative to said job site.

- 51. (Original) The system of claim 50, wherein at least some of said vehicles include a wireless device comprising a sensor only device mounted thereon and having a short range wireless interface.
- 52. (Previously Presented) The system of claim 49, wherein said mapping and text messaging applications include a mapping application which includes street level map data and map control application, and said business enterprise includes a local computer with said street level map data and map control application resident thereon and an application server with a data channel for providing asset location information therethrough directly from said application server to said mapping application, for seamless location data updates and smooth interaction with said map and said assets depicted thereon and with Internet delivery of code and map database updates.
- 53. (Original) The system of claim 52, further including means for initiating mapping functions from others of said business applications and initiating functions of at least some of said other business applications from the mapping interface of said mapping application.

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54. (Original) The system of claim 52, wherein said data channel is further adapted to

transmit procedure calls to and from others of said business applications and said core

business logic.

55. (Original) The system of claim 49, wherein said assets comprise vehicles each including

at least one of said wireless devices mounted therein, each of said vehicles further

including means for detecting and reporting location data in the form of geodetic

position, along with speed and heading of the respective vehicle, to said business

enterprise through said wireless gateway and said messaging application from the

respective wireless device periodically and, together with other data, in response to

sensing of events encountered by said vehicle.

56. (Original) The system of claim 55, wherein said location data in the form of geodetic

position, along with speed and heading is stored in the said database at said business

enterprise, and said mapping application displays each said position as the corresponding

data are received and further displays historical location data when requested.

57. (Original) The system of claim 55, wherein said event reports are tagged to vehicle

location in real time, said event reports including speeding exceptions, unauthorized

stops, text messages initiated by field personnel, and automated status reporting such as

arrival at a job site by the respective vehicle.

58. (Original) The system of claim 55, wherein said wireless gateway includes means for

guaranteeing delivery of said reports.

59. (Currently amended) A method for efficient management of transportable assets

including vehicles of a business enterprise, comprising the steps of:

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placing wireless devices in said assets for connection to a wireless gateway through at least one wireless data network,

connecting asset management apparatus of said business enterprise to said wireless gateway by browsers through the Internet, for serving business applications of said business enterprise over the Internet to process data for managing said assets,

providing said wireless gateway with location aware core business logic for tying said assets and business applications together through a common set of protocols and interfaces, including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the dispatch instructions, whereby to enable said business applications to obtain data indicative of location of said asset, and

monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset.

- 60. (Original) The method of claim 59, including managing login accounts of said business enterprise and access to location and availability data regarding said assets of said business enterprise, with said core business logic.
- 61. (Original) The method of claim 60, further including managing communications between said wireless devices and said business enterprise and access to said at least one wireless network with said core business logic.
- 62. (Original) The method of claim **59**, including routing data communications between said business enterprise and said wireless devices via said wireless gateway through said core business logic.

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63. (Original) The method of claim **59**, including:

storing information at said wireless gateway indicative of location of a job site designated by work order management and dispatching applications of said business applications for maintaining work orders and scheduling said vehicles where work is to be performed,

sending said stored job site location information from said wireless gateway to vehicles dispatched by a dispatching application to said job site under a work order, and

transmitting data via said wireless gateway indicative of events sensed by said vehicles including vehicle arrival at and departure from said job site, to a work order management application for updating said work order accordingly, whereby to enable said business enterprise to maintain an ongoing record of the state of completion of scheduled work of each vehicle relative to said job site.

- 64. (Original) The method of claim 63, including mounting a sensor only device as the wireless device with a short range wireless interface in at least some of said vehicles.
- 65. (Original) The method of claim **59**, including:

providing a mapping application as one of said business applications and a local computer at said business enterprise with said street level map data and map control application resident thereon and an application server with a data channel for providing asset location information therethrough directly from said application server to said mapping application, to permit seamless location data updates and smooth interaction with said map and said assets depicted thereon and with Internet delivery of code and map database updates.

66. (Currently amended) A method of communicating between a business enterprise and remote mobile assets of the business enterprise outfitted with wireless devices, through multiple wireless networks and the Internet, said method comprising:

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establishing a wireless gateway with location aware business logic for enhancing said communication using web served business applications run by said business enterprise, and

providing a common interface and protocol for communicating location based information to and from the wireless devices of said remote mobile assets and said business enterprise via said location aware business logic to enable said business applications that follow said protocol to interface with said wireless gateway, and

monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset.

- 67. (Original) The method of claim 66, including employing event sensors of said wireless devices with a short range wireless interface in at least some of said mobile assets, and using said location based information to trigger sensing of events or to tag events, messages, or other data communicated between the wireless devices of said remote mobile assets and said business enterprise.
- 68. (Original) The method of claim 66, including communicating frequent periodic reports of location based information from said mobile assets by bundling said reports into large packets for less frequent transmission via said wireless gateway.
- 69. (Original) The method of claim 68, including using a user datagram protocol for transmitting said report packets, together with a limited guaranteed delivery protocol therefor.
- 70. (Original) The method of claim **68**, including organizing data to be included in said reports into groups for summary reporting.
- 71. (Original) The method of claim 66, including limiting queries by users in said business enterprise to said mobile assets to obtain data therefrom to a selectable time range and to

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data items for which the respective user has authorized access from said business

enterprise.

72. (Original) The method of claim 66, including displaying locations of at least some of said

mobile assets on a map within a web browser connected to a web server of said business

enterprise, where data pertaining to said mobile assets are pushed to a map controlling

application among said business applications within said browser using a connection to a

second server that provides said mobile asset data.

73. (Original) The method of claim 72, including storing map data on a local computer of the

business enterprise running said web browser, and updating the map data automatically

when new information becomes available on said web server.

74. (Original) The method of claim 72, including storing said map controlling application on

a local computer of the business enterprise running said web browser, and updating the

map controlling application automatically when new software therefor becomes available

on said web server.

75. (Original) The method of claim 72, wherein at least some of said mobile assets are

vehicles to be dispatched to and from job sites where work or storage is to be performed

in a geographic territory of interest to said business enterprise, and including:

storing information at said wireless gateway indicative of location of a job site

designated by work order management and dispatching applications among said business

applications for maintaining work orders and scheduling said vehicles relative to said job

site,

transmitting said stored job site location information from said wireless gateway

to vehicles dispatched by a dispatching application to said job site under a work order,

and

relaying data via said wireless gateway from said vehicles indicative of sensed

events including vehicle arrival at and departure from said job site, to a work order

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management application for automatically changing the status of said work order accordingly, whereby to enable said business enterprise to track locations and status of

said vehicles relative to said job site.

76. (Original) The method of claim 75, including bandwidth reducing periodic reporting of

location based information from said mobile assets by data compression and packet

bundling to lessen frequency of report transmissions to said business enterprise via said

wireless gateway.

77. (Original) The method of claim 76, including using a user datagram protocol for said

report packets, and a limited guaranteed delivery protocol therefor by attempting delivery

of messages for a predetermined period of time and upon expiration of said time period

without successful delivery of a message, notifying the user thereof.

78. (Original) The method of claim 76, including organizing data to be included in said

reports into groups for summary reporting.

79. (Original) The method of claim 75, including organizing and maintaining data regarding

type, capability and status of each vehicle for said work order management application.

80. (Original) The method of claim 79, including using said location aware business logic in

said wireless gateway in conjunction with data obtained from said wireless devices

regarding type, capability and status of each vehicle to obtain unit, type, historical

summaries, and historical trend analyses for a fleet of vehicles operated by said business

enterprise.

81. (Original) The method of claim 67, wherein at least some of said mobile assets are

vehicles, and including sensing of speed, distance, and heading from vehicle navigation,

and sensing equipment utilization of the vehicles, and transmitting sensed data via said

wireless devices.

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82. (Original) The method of claim 67, wherein at least some of said mobile assets are vehicles, and including sensing and reporting selected events generated by vehicle sensors via said wireless devices over a predetermined time duration, and creating groups of reported events by selecting a start event and an end event of events to be reported.

83. (Currently Amended) A wireless gateway for connecting mobile and remote assets or human resources to business enterprise users through at least one wireless network, said gateway comprising:

location aware business logic for sending and receiving location based information to and from remote and mobile assets and an enterprise user, and for applying business logic to said location information to enhance and automate business applications run by the enterprise user, wherein said remote assets include at least one handheld portable device operating on a wireless network;

said business logic providing an interface and protocol for handling said location information and enabling applications that follow said protocol to interface with said gateway to use said location information to dispatch instructions to a mobile asset to proceed to a job site different from its dispatch location including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the dispatch instructions, and automatically detect at least one of the events of the mobile asset arriving at the job site and the mobile asset leaving the job site, and

an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset.

84. (Currently Amended) A wireless gateway for connecting mobile and remote assets or human resources to business enterprise users through at least one wireless network, said gateway comprising:

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location aware business logic for sending and receiving location based information to and from remote and mobile assets and an enterprise user, and for applying business logic to said location information to enhance and automate business applications run by the enterprise user, wherein said mobile assets include vehicles, and navigation and sensor devices mounted respectively to at least some of said vehicles and operating on a wireless network;

said business logic providing an interface and protocol for handling said location information and enabling applications that follow said protocol to interface with said gateway to use said location information to dispatch instructions to a mobile asset to proceed to a job site different from its dispatch location and automatically detect at least one of the events of the mobile asset arriving at the job site and the mobile asset leaving the job site, and

an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile sheet.

85. (Currently Amended) A wireless gateway for connecting mobile and remote assets or human resources to business enterprise users through at least one wireless network, said gateway comprising:

location aware business logic for sending and receiving location based information to and from remote and mobile assets and an enterprise user, and for applying business logic to said location information to enhance and automate business applications run by the enterprise user;

said business logic providing an interface and protocol for handling said location information and enabling applications that follow said protocol to interface with said gateway to use said location information to dispatch instructions to a mobile asset to proceed to a job site different from its dispatch location including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the

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dispatch instructions, and automatically detect at least one of the events of the mobile asset arriving at the job site and the mobile asset leaving the job site, and

an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset,

wherein said remote and mobile assets include:

at least some hybrid systems, each hybrid system including

a handheld portable device not connected to the mobile asset, and

a combined navigation and sensor device mounted to a vehicle,

each of said devices operating on a wireless network.

86. (Currently Amended) A method for connecting mobile and remote assets or human resources to business enterprise users through at least one wireless network, said method comprising:

sending and receiving location based information to and from remote and mobile assets by means of location aware business logic in said gateway, including using at least some handheld portable devices operating on a wireless network as said remote assets, and applying said business logic to said location information to enhance and automate business applications run by an enterprise user, and

providing an interface and protocol for handling said location information with said business logic for enabling applications that follow said protocol to interface with said gateway and use said location information to said business logic providing an interface and protocol for handling said location information and enabling applications that follow said protocol to interface with said gateway to use said location information to dispatch instructions to a mobile asset to proceed to a job site different from its dispatch location including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the dispatch instructions, and automatically detect at least one of the events of the mobile asset arriving at the job site and the mobile asset

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leaving the job site, and <u>monitoring and</u> tracking <u>the quantity and consumption of consumable</u> inventory of non-vehicle products on the mobile asset <u>not connected to the mobile asset</u> and used in the business of the mobile asset.

87. (Currently Amended) A method for connecting mobile and remote assets or human resources to business enterprise users through at least one wireless network, said method comprising:

sending and receiving location based information to and from remote and mobile assets by means of location aware business logic in said gateway, and applying said business logic to said location information to enhance and automate business applications run by an enterprise user, and

providing a common interface and protocol for handling said location information with said business logic for enabling applications that follow said protocol to interface with said gateway and use said location information to said business logic providing an interface and protocol for handling said location information and enabling applications that follow said protocol to interface with said gateway to use said location information to dispatch instructions to a mobile asset to proceed to a job site different from its dispatch location including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the dispatch instructions, and automatically detect at least one of the events of the mobile asset arriving at the job site and the mobile asset leaving the job site, and

monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset,

including using at least some hybrid systems, each hybrid system including a handheld portable device and a combined navigation and sensor device mounted to a vehicle, with each of said devices operating on a wireless network, as said remote and mobile assets not connected to the mobile asset used in the business of the mobile asset.

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88. (Currently Amended) A system for efficient management of transportable assets including vehicles and non-vehicle portable units of a business enterprise constituting a customer of said system, said system comprising:

a wireless gateway,

wireless devices disposed in said vehicle and non-vehicle portable unit assets and connectable to said wireless gateway through at least one wireless data network, said non-vehicle portable unit assets not connected to the vehicle and an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable non-vehicle products on the mobile asset used in the business of the vehicle,

said business enterprise having

asset management apparatus connected to said wireless gateway, and

business applications for processing data for managing said assets,

said wireless gateway including location aware core business logic for tying said assets and said business applications together through a set of protocols and interfaces for enabling said business applications to use data indicative of location of said assets.

89. (Currently Amended) A method for efficient management of transportable assets including vehicles of a business enterprise, comprising the steps of:

placing wireless devices in said transportable assets for connection to a wireless gateway through at least one wireless data network,

connecting asset management apparatus of said business enterprise to said wireless gateway, for serving business applications of said business enterprise to process data for managing said transportable assets,

providing said wireless gateway with location aware core business logic for tying said assets and business applications together through a set of protocols and interfaces, whereby to enable said business applications to obtain data indicative of location of said transportable assets and to trigger at least one of the events of managing a work order of the enterprise user, scheduling a transportable asset at a work or job site different from a dispatch location, dispatching instructions to a transportable asset to proceed to a job site

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different from a dispatch location, including transmitting to the mobile asset a dispatch message indicating the location of the job site, and receiving from the mobile asset a message indicating that the user of the mobile asset has received the dispatch instructions, and automatically detect at least one of the events of the mobile asset arriving at the job site and mobile asset leaving the job site, and

monitoring and tracking the quantity and consumption of consumable inventory of non-vehicle products on the mobile asset not connected to the mobile asset and used in the business of the mobile asset or goods not connected to the vehicle.

90. (Currently amended) A method of communicating between a business enterprise and remote mobile assets of the business enterprise outfitted with wireless devices, through at least one wireless network, said method comprising:

establishing a wireless gateway with location aware business logic for enhancing said communication using web served business applications run by said business enterprise, and

providing an interface and protocol for communicating location based information to and from the wireless devices of said remote mobile assets and said business enterprise via said location aware business logic to enable said business applications that follow said protocol to interface with said wireless gateway, including employing event sensors which communicate with said wireless devices over a short range wireless network in at least some of said mobile assets, and using said location based information to trigger sensing of events or to tag events, messages, or other data communicated between the wireless devices of said remote mobile assets and said business enterprise and

an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable non-vehicle products on the mobile asset and used in the business of the vehicle.

91. (Currently amended) A wireless gateway for connecting mobile and remote assets or human resources to business enterprise users through at least one wireless network, said gateway comprising:

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a vehicle mounted sensor device for collecting data related to at least one operating parameter or condition of said vehicle;

a handheld mobile device connected over a wireless network to a business enterprise user at a central location, and wherein the vehicle mounted sensor device is connected to the hand held mobile device through a short range wireless network;

wherein data collected by the vehicle mounted sensor device is transmitted to the handheld mobile device through the short range wireless network, and then from the handheld mobile device over the gateway to a business enterprise user at the central location an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable non-vehicle products on the mobile asset used in the business of the vehicle and

an inventory monitoring system on board the mobile asset for monitoring and tracking the quantity and consumption of consumable non-vehicle products on the mobile asset and used in the business of the vehicle,.